

L11 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1986:9525 CAPLUS  
 DN 104:9525  
 ED Entered STN: 11 Jan 1986  
 TI Treating metal surfaces for corrosion resistance  
 IN Terada, Haruyoshi; Oda, Nobuyuki; Tsubaki, Shinichi  
 PA Nihon Parkerizing Co., Ltd., Japan  
 SO Eur. Pat. Appl., 14 pp.  
 CODEN: EPXXDW

DT Patent  
 LA German  
 IC ICM C23C022-34  
 ICS C23C022-60; C23C022-83  
 CC 56-10 (Nonferrous Metals and Alloys)  
 Section cross-reference(s): 55

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 153973	A1	19850911	EP 1984-102556	19840309 <--
	R: DE, FR, IT, SE				
PRAI	EP 1984-102556		19840309		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 153973	ICM	C23C022-34
	ICS	C23C022-60; C23C022-83

AB For corrosion resistance, metal surfaces are conversion coated (optional), dip-coated with a solution containing organosilanes (A) 1-50 and a Ti fluoride and/or Zr fluoride compound (B) 0.05-1 g/L with A:B = (20-100):1, and then dried. Thus, degreased galvanized steel specimens were dip-coated with an aqueous solution containing vinyltriethoxysilane [78-08-0] 10, MeOH 100, and (NH<sub>4</sub>)<sub>2</sub>TiF<sub>6</sub> (I) [16962-40-6] 1 g/L, air dried at 120°, coated with an acrylic lacquer 20-25μ thick, and fired 3 min at 200°. The specimens resisted corrosion in salt water spraying for 240 h, but they were corroded in 48 h in the absence of I or in 40 h without the coating.

ST metal organosilane corrosion inhibitor; titanium fluoride galvanized steel corrosion; zirconium fluoride galvanized steel corrosion

IT Galvanized iron and steel

RL: PRP (Properties)  
 (corrosion inhibitors containing organosilanes and titanium (or zirconium) fluoride compound for)

IT Corrosion inhibitors  
 (organosilanes-titanium fluoride (or zirconium fluoride), for metals)

IT Coating process  
 (with corrosion inhibitor, of metals)

IT Aluminum alloy, base  
 RL: USES (Uses)  
 (corrosion inhibitors for)

IT 78-08-0 1760-24-3 2530-85-0 12021-95-3 13822-56-5 16962-40-6  
 17439-11-1

RL: USES (Uses)  
 (corrosion inhibitor containing, for metals)

IT 7429-90-5, uses and miscellaneous  
 RL: USES (Uses)

(corrosion inhibitors for)

RN 78-08-0  
 RN 1760-24-3  
 RN 2530-85-0  
 RN 12021-95-3  
 RN 13822-56-5  
 RN 16962-40-6

RN 17439-11-1  
RN 7429-90-5

L11 ANSWER 2 OF 2 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN  
AN 1984-130280 [21] WPIX  
DNN N1984-096440 DNC C1984-055045  
TI Coating metals with corrosion resistant adherent films - using aqueous solution containing organo silicon monomers and titanium-fluorine cpd. and/or zirconium-fluorine cpd..  
DC A82 M14 P42  
PA (HOOL) NIHON PARKERIZING CO LTD  
CYC 5  
PI JP 59064781 A 19840412 (198421)\* 5  
JP 60022067 B 19850530 (198526)  
EP 153973 A 19850911 (198537) GE <--  
R: DE FR IT SE  
DE 3408573 A 19850912 (198538)  
ADT JP 59064781 A JP 1982-171671 19820930; EP 153973 A EP 1984-102556  
19840309; DE 3408573 A DE 1984-3408573 19840309  
PRAI JP 1982-171671 19820930  
REP 1.Jnl.Ref; DE 2031358; FR 2117256; FR 2232615; FR 2286890; JP 59064781  
IC B05D003-10; C23C022-74; C23F007-00; C23F011-10  
AB JP 59064781 A UPAB: 19930925

Aqueous solution containing one or more organosilicon monomers having two or more different reactive gps. per molecule and one or more of Ti-F and Zr-F cpds. is applied to the surface of a metal article and dried. Aqueous solution may be prepared by mixing alcohol with water.

The organosilicon monomer is a silane coupling agent having a gp. (e.g., methoxy, ethoxy or silanol gp.) reactive with an inorganic substance and another gp. (e.g., vinyl, epoxy or methacryl gp.) reactive with an organic substance such as synthetic resin. Its content is 0.5-100 g/l, pref. 1-50 g/l. The Ti-F or Zr-F cpd. may be the hydrogenfluoride or ammonium fluoride. Its content is 0.01-5 g/l, pref. 0.05-1.0 g/l (as Ti or Zr).

The coating film formed is useful as an under layer on which a paint film will be formed. The film has improved corrosion resistance and paint adhesiveness due to the presence of Ti-F or Zr-F. The aqueous solution does not cause any environmental pollution.

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FS CPI GMPI  
FA AB  
MC CPI: A08-M01D; A12-B04B; M14-D

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